AMENDMENTS TO THE CLAIMS

1. (Original) A method for producing single-walled carbon nanotubes, which comprises using a combination of a metal-based catalyst having a function as a catalyst for formation of graphite, and a single-crystal substrate having a certain correspondence to the metal-based catalyst with respect to the crystal grain size and the crystal orientation thereof, dispersing the metal-based catalyst on the single-crystal substrate, and feeding a carbon material to the substrate at any temperature not lower than 500°C to thereby grow single-walled carbon nanotubes through vapor phase thermal decomposition.

2. (Original) The method for producing single-walled carbon nanotubes as claimed in claim 1, wherein the single-crystal substrate is coated with a thin film of metal-based catalyst.

3. (Currently Amended) The method for producing single-walled carbon nanotubes as claimed in claim 1 ~~or 2~~, wherein the thin film of metal-based catalyst has a thickness of from 0.1 to 10 nm.

4. (Currently Amended) The method for producing single-walled carbon nanotubes as claimed in ~~any of claims 1 to 3~~claim 1, wherein the metal-based catalyst is any one or a mixture of two or more components of the group consisting of iron group metals, platinum group metals, rare earth metals, transition metals and their metal compounds.

5. (Currently Amended) The method for producing single-walled carbon nanotubes as claimed in ~~any of claims 1 to 4~~claim 1, wherein the single-crystal substrate is formed of a substance stable at 500°C or higher.

6. (Original) The method for producing single-walled carbon nanotubes as claimed in claim 5, wherein the single-crystal substrate is any of sapphire (Al_2O_3), silicon (Si), SiO_2, SiC or MgO.

7. (Currently Amended) The method for producing single-walled carbon nanotubes as claimed in ~~any of claims 1 to 4~~claim 1, wherein hydroxyapatite is used in place of the single-crystal substrate.

8. (Currently Amended) The method for producing single-walled carbon nanotubes as claimed in ~~any of claims 1 to 7~~claim 1, wherein single-walled carbon nanotubes with controlled diameter are grown through vapor phase thermal decomposition, the diameter depending on the combination of the metal-based catalyst and the single-crystal substrate and its crystal plane.

9. (Original) The method for producing single-walled carbon nanotubes as claimed in claim 8, wherein the combination of the metal-based catalyst, the single-crystal substrate and the crystal plane connecting the two is a combination of Fe and any of A-plane, R-plane or C-plane of sapphire.

10. (Currently Amended) The method for producing single-walled carbon nanotubes as claimed in ~~any of claims 1 to 9~~claim 1, wherein the carbon material is a carbon-containing substance that is gaseous at any temperature not lower than 500°C.

11. (Original) The method for producing single-walled carbon nanotubes as claimed in claim 10, wherein the carbon material is methane, ethylene, phenanthrene or benzene.